

Listing of Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) An image sensing system constituted by connecting an image sensing apparatus and image processing apparatus,

said image sensing apparatus comprising:

an image sensing unit adapted to sense an original and output image data of the original, wherein said image sensing unit includes an image sensor which has a plurality of photoelectric conversion element arrays for respectively photoelectrically converting light of a plurality of colors, ~~and the image sensing characteristic indicates spatial positional deviations of the plurality of colors of pixel signals obtained by said image sensor;~~

a shading correction unit adapted to apply shading correction to the image data output from said image sensing unit;

a storage medium adapted to hold data on image sensing characteristic which is different from data for the shading correction; and

an output unit adapted to output the data on image sensing characteristic held in said storage medium to said image processing apparatus, and

said image processing apparatus comprising:

an input unit adapted to receive the data on image sensing characteristic output from said image sensing apparatus;

a generation unit adapted to generate image sensing characteristic correction data on the basis of the data on image sensing characteristic received by said input unit; and

an image sensing characteristic correction unit adapted to correct influence of an image sensing characteristic on the shading-corrected image data received from said image sensing apparatus using the image sensing characteristic correction data generated by said generation unit,

wherein the image sensing characteristic indicates spatial positional deviations of a plurality of colors of pixel signals, obtained by said plurality of photoelectric conversion element arrays of said image sensor, with respect to one of said pixel signals obtained by one of said plurality of photoelectric conversion element arrays.

2. (Original) The system according to claim 1, wherein the image sensing characteristic is a linearity characteristic.
3. (Original) The system according to claim 1, wherein the image sensing characteristic includes a characteristic for each of a plurality of colors to be sensed.
4. (Canceled)
5. (Previously Presented) The system according to claim 1, wherein the data on image sensing characteristic is output from said image sensing apparatus to said image processing apparatus upon starting up said image sensing apparatus.
6. (Original) The system according to claim 1, wherein said generation unit generates the image sensing characteristic correction data by inversely converting the data on image sensing characteristic.
7. (Previously Presented) The system according to claim 1, wherein said image sensing apparatus further comprises updating unit adapted to, when an exchangeable unit including said image sensor is exchanged, update the data on image sensing characteristic held in said storage medium in accordance with a characteristic of the unit.

8. (Original) The system according to claim 1, wherein when the data on image sensing characteristic held in said storage medium is updated, said output unit outputs the updated data on image-sensing characteristic to said image processing apparatus.
9. (Previously Presented) The system according to claim 1, wherein said image sensing apparatus further comprises an optical element which brings about a change in spatial positional deviation amount of the plurality of colors of pixel signals obtained by the plurality of photoelectric conversion element arrays of said image sensor, and

the data on image sensing characteristic includes basic data which indicates a basic amount of the positional deviation amount, and auxiliary data which indicates a change characteristic of the positional deviation amount.
10. (Original) The system according to claim 9, wherein said optical element is controlled or adjusted in accordance with a magnification of an image sensed by said image sensor.
11. (Previously Presented) The system according to claim 1, wherein the data on image sensing characteristic includes data which indicates a relationship between actual positions at which light forms images on the plurality of photoelectric conversion element arrays, and design positions thereof.
12. (Previously Presented) The system according to claim 1, wherein said image sensing apparatus further comprises an optical system for forming an original image on an imaging surface of said image sensor, and

said image sensor senses the original image.
13. (Previously Presented) The system according to claim 1, wherein said image sensor has the plurality of photoelectric conversion element arrays which are separated at a predetermined line spacing.

14. (Previously Presented) The system according to claim 1, wherein the plurality of colors are three colors including red (R), green (G), and blue (B), and the data on image sensing characteristic includes data indicating spatial deviation amounts among R, G, and B pixel signals.

15. (Currently Amended) An image sensing apparatus which can be used upon being connected to an external image processing apparatus, comprising:

an image sensing unit adapted to sense an original and output image data of the original, wherein said image sensing unit includes an image sensor which has a plurality of photoelectric conversion element arrays for respectively photoelectrically converting light of a plurality of colors, ~~and the image sensing characteristic indicates spatial positional deviations of the plurality of colors of pixel signals obtained by said image sensor;~~

a shading correction unit adapted to apply shading correction to the image data output from said image sensing unit;

a storage medium adapted to hold data on image sensing characteristic which is different from data for the shading correction; and

an output unit adapted to output the data on image sensing characteristic held in said storage medium to the external image processing apparatus so that the external image processing apparatus generates image sensing characteristic correction data on the basis of the data on image sensing characteristic and corrects influence of the image sensing characteristic on the shading-corrected image data received from said image sensing apparatus using the image sensing characteristic correction data,

wherein the image sensing characteristic indicates spatial positional deviations of a plurality of colors of pixel signals, obtained by said plurality of photoelectric conversion element arrays of said image sensor, with respect to one of said pixel signals obtained by one of said plurality of photoelectric conversion element arrays.

16. (Original) The apparatus according to claim 15, wherein the image sensing characteristic is a linearity characteristic.
17. (Original) The apparatus according to claim 15, wherein the image sensing characteristic includes a characteristic for each of a plurality of colors to be sensed.
18. (Canceled).
19. (Original) The apparatus according to claim 15, wherein the data on image sensing characteristic is output from said image sensing apparatus to the external image processing apparatus in an initial communication therebetween.
20. (Previously Presented) The apparatus according to claim 15, further comprising updating unit adapted to, when an exchangeable unit including said image sensor is exchanged, update the data on image sensing characteristic held in said storage medium in accordance with a characteristic of the unit.
21. (Original) The apparatus according to claim 15, wherein when the data on image sensing characteristic held in said storage medium is updated, said output unit outputs the updated data on image sensing characteristic to the external image processing apparatus.
22. (Previously Presented) The apparatus according to claim 15, further comprising an optical element which brings about a change in spatial positional deviation amount of the plurality of colors of pixel signals obtained by the plurality of photoelectric conversion element arrays of said image sensor,

wherein the data on image sensing characteristic includes basic data which indicates a basic amount of the positional deviation amount, and auxiliary data which indicates a change characteristic of the positional deviation amount.

23. (Original) The apparatus according to claim 22, wherein said optical element is controlled or adjusted in accordance with a magnification of an image sensed by said image sensor.
24. (Previously Presented) The apparatus according to claim 15, wherein the data on image sensing characteristic includes data which indicates a relationship between actual positions at which light forms images on the plurality of photoelectric conversion element arrays, and design positions thereof.
25. (Previously Presented) The apparatus according to claim 15, further comprising an optical system for forming original image on an imaging surface of said image sensor, wherein said image sensor senses the original image.
26. (Previously Presented) The apparatus according to claim 15, wherein said image sensor has the plurality of photoelectric conversion element arrays which are separated at a predetermined line spacing.
27. (Previously Presented) The apparatus according to claim 15, wherein the plurality of colors are three colors including red (R), green (G), and blue (B), and the data on image sensing characteristic includes data indicating spatial deviation amounts among R, G, and B pixel signals.
- 28-85. (Canceled)

86. (Previously Presented) An image processing apparatus operably connected to an image sensing apparatus, the image sensing apparatus having an image sensing unit adapted to sense an original and output image data of the original, a shading correction unit adapted to apply shading correction to the image data output from said image sensing unit, a storage medium adapted to hold data for an image sensing characteristic which is different from data for the shading correction, and an output unit adapted to output the data for the image sensing characteristic held in said storage medium to said image processing apparatus, said image processing apparatus comprising:

an input unit adapted to receive the data for the image sensing characteristic output from said image sensing apparatus;

a generation unit adapted to generate image sensing characteristic correction data on the basis of the data for the image sensing characteristic received by said input unit; and

an image sensing characteristic correction unit adapted to correct an image sensing characteristic of the shading-corrected image data received from said image sensing apparatus using the image sensing characteristic correction data generated by said generation unit.